



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,702	12/04/2003	Delmar Eugene Blevins	SVL920030072US1	9001

45727 7590 09/19/2006
LACASSE & ASSOCIATES, LLC
1725 DUKE STREET, SUITE 650
ALEXANDRIA, VA 22314

EXAMINER

BELL, CORY C

ART UNIT PAPER NUMBER

2164

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,702

Applicant(s)

BLEVINS ET AL.

Examiner

Cory C. Bell

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

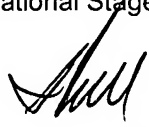
Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1-31 have been examined.

Claim Objections

2. **Claim 20** is objected too is it is believed applicant intended placed no "paced."

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. The following claims are rejected under 35 USC 112 2nd paragraph: 2, 3, 5, 10, 13, 14, 15, 16, 19, 20, 21, 23, 24, and 28.
4. **Claim 2** is rejected because the relationships between "a COMMIT," "a ROLLBACK," and "a corresponding entry" and there recitations in steps c and b respectively of clam 1 are unclear. This Claim is also expands upon an optionally recited limitation and therefore may not be limiting.
5. **Claim 3** is rejected because the relationships between "a COMMIT," "a ROLLBACK," "a RECOVER decision" and "a corresponding entry" and there recitations in steps c and b respectively of clam 1 are unclear. This Claim is also expands upon an optionally recited limitation and therefore may not be limiting.
6. **Claim 5** is rejected as "minimum" is a relative term and thus makes the meets and bounds of the claim unclear.
7. **Claims 10 and 20** are rejected as it is unclear what the network connection is separate from.
8. **Claim 13** is rejected as it contains errors similar to those in claim 2. See above.

Art Unit: 2164

9. **Claim 14** is rejected as it contains errors similar to those in claim 2. See above.
10. **Claim 15** is rejected as it contains errors similar to those in claim 2. See above.
11. **Claim 16** is rejected because the relationship between “code inserts in said relational table” to the previous recitation in claim 1 is unclear.
12. **Claim 19** is rejected as it contains uncertainties similar to those in claim 2. See Above.
13. **Claim 21** is rejected as it contains uncertainties similar to those in claim 3. See Above.
14. **Claim 23** is rejected as it contains uncertainties similar to those in claim 5. See Above.
15. **Claim 28** is rejected as it contains uncertainties similar to those in claim 5. See Above.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

16. Claims 1-31 are rejected under 35 USC 101.
17. Claims 1-31 refer to software for performing a method, as the code itself is not executed, no useful concrete and tangible result can occur. Secondly, the software is not embodied on a tangible medium, thus if a result was produced it would not be tangible. Last, the software itself has no code for providing a useful result even if the code was to be executed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2164

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6-14, 16-22, 24-26, and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6873995, known hereafter as Benson.

18. *As per Claim 1,*

A method implementing a robust 2-phase commit protocol between a client and a server via a relational table and software facilitating communications with said client and said server, said relational table storing a list of potentially indoubt units of work, said method as implemented in said software comprising the steps of: (a) receiving an invocation from said client for a first phase of commit for a transaction representing a unit of work; (Figure 1)(b) inserting an entry in said relational table corresponding to said unit of work and transmitting an instruction to said server to prepare to commit for said transaction, said inserted entry indicating said unit of work is potentially an indoubt entry (Col 6 lines 12-29); and (c) receiving a request from said client to perform any of the following decisions: a COMMIT, a ROLLBACK(Col 9 lines 1-5), or a RECOVER, wherein said relational table is updated after execution of said request.

19. *As per Claim 2,*

2. A method as per claim 1, wherein, if said received request is a COMMIT or a ROLLBACK decision, said method comprising the steps of: communicating with said server and processing said COMMIT or ROLLBACK request, and upon successful processing, deleting a corresponding entry in said relational table. (Col 9 lines 1-5)

20. *As per Claim 3, Claim 3 is rejected under the same grounds as claim 1 as the request is not a Recover decision. It is also noted the Recover decision is an XA Recover as defined in the*

Art Unit: 2164

specification and is thus inherently part of the reference as the reference can be XA compatible(Col 10 lines 8-13)

3. A method as per claim 1, wherein, if said received request is a RECOVER decision, said method comprising the steps of: querying said relational table to identify a list of indoubt units of work; transmitting said list of indoubt units of work to said client; receiving a COMMIT or ROLLBACK decision from said client; communicating with said server to process said commit or rollback request, and upon successful processing, deleting a corresponding entry in said relational table.

21. *As per Claim 6,*

6. A method as per claim 1, wherein said relational table is a SQL table and said step of inserting an entry in said relational table is performed via issuing a SQL INSERT instruction(Col 6 lines 13-29).

22. *As per Claim 7,*

7. A method as per claim 1, wherein said relational table is stored in said server and a request for said insertion of entry in said relational table is placed on a network message that includes said instruction to said server to prepare to commit for said transaction.(Col 4 lines 2-39)

23. *As per Claim 8,*

8. A method as per claim 1, wherein said method is implemented across networks. (Figure 1, col 13 line 43)

24. *As per Claim 9,*

Art Unit: 2164

9. A method as per claim 8, wherein said across networks element comprises any of, or a combination of, the following: local area network (LAN), wide area network, wireless network, or the Internet(col 13 line 43).

25. *As per Claim 10,*

10. A method as per claim 1, wherein requests for deletions of entries in said relational table are placed on a separate network connection to avoid starting a new unit of work.(Col 4 lines 53-57)

26. *As per Claim 11,*

11. A method as per claim 1, wherein said method comprises the step of mapping said 2-phase protocol onto a protocol supported by said server.(Col 4 lines 8-13)

27. *As per Claim 12,*

See Claim 1 rejection above.

28. *As per Claim 13,*

See Claim 2 rejection above.

29. *As per Claim 14, Claim 14 is rejected under the same grounds as claim 12 as the request is not a Recover decision. Which according the specification is what invokes this process. It is also noted the Recover decision is an XA Recover as defined in the specification and is thus inherently part of the reference as the reference can be XA compatible (Col 10 lines 8-13)*

30. *As per Claim 16,*

31. *See Claim 6 rejection.*

32. *As per Claim 17,*

33. *See Claim 7 rejection.*

34. *As per Claim 18,*

Art Unit: 2164

See Claims 1 and 6 rejections and (Col 6 lines 13-29).

35. *As per Claim 19,*

See Claim 2 rejection. The delete instruction is inherently an SQL DELETE function as it is on a relational table.

36. *As per Claim 20,*

See Claim 10 rejection.

37. *As per Claim 21,*

38. See Claim 3 rejection.

39. *As per Claim 22,*

This Claim is non-limiting as it depends from an optionally recited claim.

40. *As per Claim 24,*

See Claim 8 Rejection.

41. *As per Claim 25,*

See Claim 9 rejection.

42. *As per Claim 26,*

Software implementing a 2-phase commit protocol between a client and a server comprising: a first module invoked to create a relational table in said server to store potential indoubt units of work; a second module invoked to insert or delete indoubt entries of work in said relational table, wherein insertions of indoubt entries are performed if an invocation is received from said client for a first phase of commit for a transaction representing a unit of work;(See Claim 1 rejection) and wherein deletions of indoubt entries are performed upon successful processing of a commit or rollback decision;(See Claim 2 rejection) and a third module invoked upon receiving a recover

Art Unit: 2164

instruction from said client, said third module extracting a list of indoubt units of work from said relational table and transmitting said extracted list to said client, wherein said client inspects said list and issues a commit or rollback decision to said middleware regarding said indoubt units of work in said list. (This is inherently part of the XA protocol that can be part of this invention, see col 4 lines 8-13, being that the recover command is an XA Recover as disclosed in the specification of the instant application and is taught in the XA specification Page 47)

43. *As per claim 29,*

See Claim 6 rejection.

44. *As per claim 30,*

See Claim 7 rejection.

45. *As per claim 31,*

See Claim 11 rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

sl Claims 4, 5, 15, ²³~~22~~, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson in view of official notice.

46. *As per claims 4 and 27,* Benson teaches there being multiple servers in col 4 lines 4-13, however Benson fails to expressly disclose still being able to support a recover decision even if one of the servers. The examiner takes official notice that cluster failover was well known in the

Art Unit: 2164

art at the time of the invention. Thus it would have been obvious to one of ordinary skill in that art to include a failover system when implementing a cluster, so that when one node failed the whole system would not crash, thus allowing the recover decision to be processed even after a server failure.

47. *As per claims 5, 15, 23, and 28*, Benson col 6 line 65 – col 7 line 5 teaches using a table level lock to keep contention to a minimum, however Benson fail to expressly disclose using row-level locking. The examiner takes official notice that row-level locking was well known in the art at the time of the invention. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use row level locking in place of table level locking as it allows for more flexibility, ie not having to lock a whole table to lock one row.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cory C. Bell whose telephone number is (571) 272 2736. The examiner can normally be reached on m-f 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272 4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2164

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



SAM RIMELL
PRIMARY EXAMINER